



# CHEMICAL PROCESS CONTROL

**PROF. SUJIT JOGWAR**

Department of Chemical Engineering  
IIT Bombay

**PRE-REQUISITES** : Material and Energy balances

**INTENDED AUDIENCE** : Chemical Engineering, System and Control Engineering

**COURSE OUTLINE :**

In this course, we will begin with the dynamic analysis of chemical engineering systems which will tell us how these systems behave. After knowing their behavior, we will move to controlling this behavior as per our choice with the help of a control system. Lastly, using advanced controller, we will see how this can be achieved in the most intelligent way.

**ABOUT INSTRUCTOR :**

Prof.Sujit Jogwar, Department of Chemical Engineering, IIT Bombay.

**COURSE PLAN :**

**Week 1:** Motivation for process control,Introduction to process dynamics

**Week 2:** First order dynamic systems

**Week 3:** Second and higher order dynamic systems

**Week 4:** Introduction to feedback control

**Week 5:** Stability analysis

**Week 6:** Feedback control design

**Week 7:** Advanced control topics

**Week 8:** Batch process control